

CLAIMS

What is claimed:

1. A dissector device useful for dissecting a tissue comprising:

an elongated housing having proximal and distal ends, said distal end being operative to be inserted within a surgical incision, said housing further being operative to receive a viewing device within the lumen thereof and orient the viewing device to view through the distal end of said housing;

a tissue spreading dissector mechanism formed upon said distal end of said housing, said tissue spreading dissector mechanism operatively transitional between: a first neutral configuration wherein said tissue spreading dissector mechanism extends from the distal end of said housing; and an operative configuration wherein said tissue spreading dissector mechanism extends outwardly relative to said distal end of said housing; and

an actuator mechanism formed upon said proximal end of said housing operative to selectively cause said tissue spreading dissecting mechanism and tissue spreaders to selectively transition between said neutral and operative configurations.
2. The dissector of claim 1 wherein said tissue spreader dissecting mechanism comprises opposed blade members operative to extend in diametrically opposed directions from said distal end of said housing when said tissue spreader dissecting mechanism assumes operative configurations.
3. The dissector of claim 2 wherein said dissector further includes a clamp mechanism for securably holding said viewing device into position within said lumen of said

housing.

4. The dissector of claim 3 wherein said clamp mechanism is formed upon said proximal end of said housing.
5. The dissector of claim 1 wherein said housing further includes a stop member formed within the lumen thereof for limiting the distance said viewing device or endoscope can extend distally within said tubular housing.
6. The dissector of claim 1 wherein said actuator mechanism is an actuator bar operatively coupled to handle members and said tissue spreading dissector mechanism, said actuator bar being operative to cause said tissue spreading dissector mechanism to selectively transition between said neutral and operative configurations when said handle members are actuated.
7. The dissector of claim 1 wherein said tissue spreading dissector mechanism comprises a first pair of arms pivotally mounted to an actuator rod and a second pair of arms coupled to said first pair of arms and operative to pivot outwardly relative to said first pair of arms, said second pair of arms having tissue spreader members formed on the respective ends thereof that are operative to transition from said neutral and operative configurations as said first and second arm members pivotally move relative to one another.
8. The dissector of claim 1 wherein said dissector further comprises a channel formed therein for administering an insufflative gas.
9. The dissector of claim 1 wherein said dissector is capable of being axially received within a port.
10. The dissector of claim 9 wherein said dissector is insertable through a port or cannula.

11. The dissector of claim 2 wherein said opposed tissue spreader blade members cooperate to define a conical-shaped configuration when assuming said first neutral position.
12. The dissector of claim 2 wherein said opposed tissue spreader blade members are provided with serrated cutting edges.
13. The dissector of claim 2 wherein said opposed tissue spreader blade members are provided with at least one void formed thereon defining a channel through which said viewing device can view the distal end of said housing.
14. The dissector of claim 1 wherein the tissue spreaders of the tissue dissecting mechanism are in electrical communication with a source of electric current, said tissue spreader used for selectively cauterizing tissue.
15. A dissector device useful for dissecting a tissue comprising:

an elongated housing having proximal and distal ends, said distal end being formed from a substantially transparent material and operative to be inserted within an incision on a patient, said housing further being operative to receive and securably hold a viewing device within the lumen thereof and orient the viewing device to view through the distal end of said housing;

a plurality of flap members formed upon the distal end of said housing, said flap members being operatively transitional between: a first closed position wherein said flaps collectively defined a generally closed configuration; an operative configuration wherein said flap members extend radially outward about said distal end of said housing; and

an actuator mechanism formed upon said proximal end of said housing operative to selectively cause said flap members to selectively transition between said closed and operative configurations.

16. The dissector of claim 15 wherein said flap members include a metal reinforcement formed therein for imparting structural rigidity thereto.
17. The dissector of claim 16 wherein said metal reinforcement comprises a spring operative to bias the flap members to the closed configuration.
18. The dissector of claim 15 wherein said flap members include a sharpened gripping surface formed on the surface thereof.
19. The dissector of claim 15 further comprising an actuator operatively coupled to said actuator mechanism and said flap members, said actuator being operative to cause said flap members to selectively transition between said closed and operative configurations when said actuator mechanism is actuated.
20. The dissector of claim 19 wherein said actuator comprises an elongated cylindrical sleeve disposed within said housing and having a distal end in abutment with said flap members, said distal end of said cylindrical sleeve being operative to advance distally within said tubular housing such that said flap members transition from said closed to operative configurations.
21. The dissector of claim 15 wherein said actuator mechanism further comprises a locking mechanism to cause said flap members to assume said operative configuration.
22. The dissector of claim 21 wherein said locking mechanism is formed upon the actuator mechanism of said port.

23. The dissector of claim 15 wherein said distal end includes at least two flap members formed thereon.
24. The dissector of claim 15 further comprising an elastic sheath formed radially about said plurality of flap members such that said flap members are biased to the closed configuration..
25. The dissector of claim 15 further comprises an elastic, sheath affixed to said flap members, said sheath being operative to form a covering about the opening of said distal end of said housing when said flap members assume said operative configuration.
26. The dissector of claim 15 wherein said housing is a cannula.
27. The dissector of claim 15 wherein said housing is able to accommodate an existing endoscope.
28. The dissector of claim 15 wherein said flap members are formed to have an increased sidewall thickness extending toward said distal ends thereof.
29. The dissector of claim 15 wherein said metal reinforcement comprises a plurality of distally-extending leaf spring members operative to bias the flap members to the closed configuration.
30. A dissector device useful for dissecting a tissue comprising:

an elongate housing having proximal and distal ends, said distal end being operative to be inserted within a surgical incision, said housing being further operative to receive an actuator and a viewing device within the lumen thereof and orient the viewing device to view through the distal end of said housing;

tissue spreaders formed upon the distal end of said housing for cutting or gripping tissue and operatively connected to a tissue spreader dissecting mechanism; said tissue spreader dissecting mechanism operatively transitioning said tissue spreaders between: a closed configuration wherein said tissue spreaders collectively define a generally closed configuration; and an operative configuration wherein said flap members extend radially outward about said distal end of said housing; and

an actuator mechanism formed upon the proximal end of said housing and operatively connected to an actuator within said housing, said actuator operatively connected to said tissue spreader dissecting mechanism and operative to transition said tissue spreaders between said operative and closed configurations.

31. The dissector of claim 30 wherein said tissue spreaders are a plurality of flap members.
32. The dissector of claim 30 wherein said tissue spreaders are arcuate blades.
33. The dissector of claim 30 wherein said housing is tubular.
34. The dissector of claim 30 wherein said tissue spreading mechanism comprises a lever.
35. The dissector of claim 30 wherein said tissue spreading mechanism comprises a ramp.
36. The dissector of claim 30 wherein said viewing device is an endoscope.
37. The dissector of claim 30 wherein said housing further comprises a clamp for securing a viewing device.
38. The dissector of claim 30 wherein said housing further comprises an inlet for gas

insufflation of a body cavity.

39. The dissector of claim 30 wherein said actuator mechanism further comprises a latch for securing the actuator in an operative configuration.
40. The dissector of claim 30 wherein the flap members of the tissue dissecting mechanism are in electrical communication with a source of electric current, said flaps used for selectively cauterizing tissue.
41. The dissector of claim 40, wherein said tissue is a blood vessel.